Author index

Alcaraz, M.-L. 207
Anantharaman, P.N. 217
Aramata, A. 199
Arvia, A.J. 131

Bakos, I. 223
Baltrunas, G. 93
Barbero, C. 193
Barradas, R.G. 33
Barsch, U. 97
Beck, F. 97
Berg, D.A. 33
Bizzotto, D. 259
Buschmann, H.W. 233

Calvo, E.J. 279
Castro, E.A. 131
Chen, H. 267
Chi, Q. 169
Chidambaram, S. 25
Colletti, L.P. 145
Columbia, M.R. 1
Cotton, T.M. 79

Daasbjerg, K. 39
Dalbeck, R. 233
Danilowicz, C. 279
Dhawan, S.K. 275
Diaz, L. 279
Dietrich, M. 87
Dong, S. 79, 169
Drunga, V. 93

Enyo, M. 199
Estiu, G. 131

Fang, H. 267
Fedurco, M. 53
Fernández, H. 153
Fuchigami, T. 255
Fujishima, A. 247
Fujisue, M. 251

Haas, O. 193
Hambitzer, G. 97
Hashimoto, K. 247
Heinze, J. 87
Heinzinger, K. 227
Heyrovský, M. 53
Heywang, G. 87
Holze, R. 97
Hombo, J. 251
Hundhammer, B. 275

Iio, K. 255
Iwasita, T. 183

Jarząbek, G. 103
Jaworski, R.K. 175
Jonas, F. 87

Kötz, R. 193
Kuhnhardt, C. 71

Lai, E.P.C. 33
Li, G. 267
Liao, X. 267
Lipkowski, J. 259, 283
Lippe, J. 97
López-Tenés, M. 15
Lu, T. 79

Mader, P. 53
Martínez-Ortiz, F. 15
Matsumoto, Y. 251
McCreery, R.L. 175
Miras, M.C. 193
Molina, A. 15
Moressi, M.B. 153

Nagata, M. 251
Nakayama, S. 247
Nazmutdinov, R.R. 227
Nishina, T. 161
Noël, J.J. 259
Noel, M. 25, 217
Noguchi, Y. 247

Occhialini, D. 39
Ohkawa, K. 247
Ohmori, T. 199
Ohuchi, S. 161

Paredes Olivera, P. 131
Pastor, E. 183, 271
Pedersen, S.U. 39
Probst, M. 227

Quinlan, K.P. 121

Ramakrishna, S. 289
Rangarajan, S.K. 289
Ravichandran, C. 217
Rodes, A. 183

Sano, M. 255
Sasaki, T. 251
Schmidt, V.M. 271
Sengupta, S.K. 113
Serna, C. 15
Shi, Z. 283
Singh, O.P. 113
Solomon, T. 275
Stafiej, J. 103
Stassen, I. 97
Stickney, J.L. 145
Svedas, D. 93
Szabó, S. 223

Taguchi, S. 199
Teklay, D. 145
Tessema, M. 275
Thangavelu, S. 217
Thiel, P.A. 1

Uchida, I. 161

VanderNoot, V.A. 33
Veselá, V. 53
Vielstich, W. 233

Ye, S. 79
Yu, X. 79

Zerihun, T. 275
Zhou, C. 79

Subject index

Acetylene
On the adsorption of acetylene on gold in acid media studied by DEMS (Schmidt, Pastor) 271
Acid–base interactions
The pH-dependent adsorption of *m*-nitrobenzene sulphonic acid on a thermally prepared Ti/TiO_2 electrode (Ravichandran et al.) 217
Adsorbates
A quantum chemistry description of carbon monoxide and water absorbates on single-crystal rhodium and platinum clusters (Paredes Olivera et al.) 131
Adsorption
Adsorption of CO and CO_2 on polycrystalline Pt at a potential in the hydrogen adsorption region in phosphate buffer solution: An in situ Fourier transform IR study (Taguchi et al.) 199
On the multiple states of gold deposited onto polycrystalline platinum substrates (Bakos, Szabó) 223
Quantum chemical study of the adsorption of an H_2O molecule on an uncharged mercury surface (Nazmutdinov et al.) 227
Adsorption of octadecanol from the gas|solution interface onto an electrified gold|solution interface (Bizzotto et al.) 259
On the adsorption of acetylene on gold in acid media studied by DEMS (Schmidt, Pastor) 271
Alternating current
New methods for the application of an alternating current. Part 3. Application of combined direct and alternating currents at standard electrodes (Molina et al.) 15
Anodic layer
TDS study of the anodic layer on emersed polycrystalline platinum (Dalbeck et al.) 233
Anodic monofluorination
Electrolytic partial fluorination of organic compounds. Part IX. Selective anodic monofluorination of hydrazones (Fuchigami et al.) 255
Anodic polarization
Direct and through-film dissolution of Ni during anodic polarization in aqueous HF media (Noel, Chidambaram) 25
Au(111) electrode
Investigations of Br^- adsorption at the Au(111) electrode in the presence of underpotentially deposited copper atoms (Shi, Lipkowski) 283

Bare silver electrode
Direct electron transfer reaction of hemoglobin at the bare silver electrode (Li et al.) 267
p-Benzoquinone–InP electrode systems
Electron transfer properties of the p-benzoquinone–InP electrode systems (Quinlan) 121
Biological processes
The reactions of cystine at mercury electrodes (Heyrovský et al.) 53

Br^- adsorption
Investigations of Br^- adsorption at the Au(111) electrode in the presence of underpotentially deposited copper atoms (Shi, Lipkowski) 283

Carbon microdisk electrodes
Laser activation of carbon microdisk electrodes: surface oxide effects on $Ru(NH_3)_6^{2+/3+}$ kinetics (Jaworski, McCreery) 175
Carbon monoxide
A quantum chemistry description of carbon monoxide and water absorbates on single-crystal rhodium and platinum clusters (Paredes Olivera et al.) 131
Catalytic electron transfer
The influence of diffusion coefficients in a catalytic electron transfer mechanism on linear sweep voltammetric and potential step chronoamperometric measurements (Occhialini et al.) 39
Chemical yield
Contact glow discharge electrolysis: a study of its chemical yields in aqueous inert-type electrolytes (Sengupta, Singh) 113
Chronopotentiometric response
Chronopotentiometric response with programmed current when the reactant and/or product are adsorbed at spherical and planar electrodes (Alcaraz) 207
CO_2
Electrochemical reduction of carbon dioxide on hydrogen-storing materials: Part 4. Electrochemical behavior of the Pd electrode in aqueous and nonaqueous electrolyte (Ohkawa et al.) 247
Conducting polymers
Reproducibility in the electrodeposition of conducting polymers —a parametric study of poly-(3-methylthiophene) (Barsch et al.) 97
Contact glow discharge electrolysis
Contact glow discharge electrolysis: a study of its chemical yields in aqueous inert-type electrolytes (Sengupta, Singh) 113
CO oxides
Photoelectrochemical epitaxial growth of Co oxides on TiO_2 and $SrTiO_3$ single-crystal electrodes (Matsumoto et al.) 251
Copper electrodes
In-situ photoacoustic investigation of thallium underpotential deposition on polycrystalline copper electrodes (Berg et al.) 33
Co_2 reduction
Structural effects on CO_2 reduction at Pt single-crystal electrodes. Part 1. The Pt(110) surface (Rodes et al.) 183
Current–time functions
New methods for the application of an alternating current. Part 3. Application of combined direct and alternating currents at standard electrodes (Molina et al.) 15
Cystine reactions
The reactions of cystine at mercury electrodes (Heyrovský et al.) 53

Cytochrome *c*
Direct electrochemical reactions of cytochrome *c* at iodide-modified electrodes (Lu et al.) 79

DEMS
On the adsorption of acetylene on gold in acid media studied by DEMS (Schmidt, Pastor) 271
Deposited copper atoms
Investigations of Br^- adsorption at the Au(111) electrode in the presence of underpotentially deposited copper atoms (Shi, Lipkowski) 283
Diffusion coefficients
The influence of diffusion coefficients in a catalytic electron transfer mechanism on linear sweep voltammetric and potential step chronoamperometric measurements (Occhialini et al.) 39
The use of ultramicroelectrodes for the determination of diffusion coefficients (Moressi, Fernández) 153
Dioxygen
Electrocatalytic reduction of dioxygen by an electrochemically polymerized flavin adenine dinucleotide film (Chi, Dong) 169
Direct electron transfer
Direct electrochemical reactions of cytochrome *c* at iodide-modified electrodes (Lu et al.) 79
Dissolution
Direct and through-film dissolution of Ni during anodic polarization in aqueous HF media (Noel, Chidambaram) 25
3-D wired enzyme
A new polycationic hydrogel for three dimensional enzyme wired modified electrodes (Calvo et al.) 279

Electroadsorption
Structural effects on CO_2 reduction at Pt single-crystal electrodes. Part 1. The Pt(110) surface (Rodes et al.) 183
Electrocatalytic reduction
Electrocatalytic reduction of dioxygen by an electrochemically polymerized flavin adenine dinucleotide film (Chi, Dong) 169
Electrochemical characterization
Electrochemical and spectroscopic characterization of polyalkylenedioxythiophenes (Dietrich et al.) 87
Electrochemical deposition
Nucleation and growth of Prussian Blue films on glassy carbon electrodes (Kuhnhardt) 71
Electrochemical polymerization
Electrocatalytic reduction of dioxygen by an electrochemically polymerized flavin adenine dinucleotide film (Chi, Dong) 169
Electrochemical quartz crystal microbalance
Electrochemical quartz crystal microbalance investigation of the ion exchange mechanism in the first oxidation step of polyaniline in $HClO_4$ (Miras et al.) 193
Electrochemical reactions
New methods for the application of an alternating current. Part 3. Application of combined direct and alternating currents at standard electrodes (Molina et al.) 15
Electrodeposition
Phenomena limiting the rate of electroreduction of cyanide silver complexes at low electrode polarizations (Baltrunas et al.) 93
Reproducibility in the electrodeposition of conducting polymers —a parametric study of poly-(3-methylthiophene) (Barsch et al.) 97
Electrolytic partial fluorination
Electrolytic partial fluorination of organic compounds. Part IX. Selective anodic monofluorination of hydrazones (Fuchigami et al.) 255
Electron transfer
Direct electron transfer reaction of hemoglobin at the bare silver electrode (Li et al.) 267

Film electrodes
Electrocatalytic reduction of dioxygen by an electrochemically polymerized flavin adenine dinucleotide film (Chi, Dong) 169
Flavin adenine dinucleotide
Electrocatalytic reduction of dioxygen by an electrochemically polymerized flavin adenine dinucleotide film (Chi, Dong) 169
Formic acid
The interaction of formic acid with transition metal surfaces, studied in ultrahigh vacuum (Columbia, Thiel) 1
FTIR
Adsorption of CO and CO_2 on polycrystalline Pt at a potential in the hydrogen adsorption region in phosphate buffer solution: An in situ Fourier transform IR study (Taguchi et al.) 199

Glassy carbon electrodes
Nucleation and growth of Prussian Blue films on glassy carbon electrodes (Kuhnhardt) 71
Gold
On the multiple states of gold deposited onto polycrystalline platinum substrates (Bakos, Szabó) 223
On the adsorption of acetylene on gold in acid media studied by DEMS (Schmidt, Pastor) 271

Hemoglobin
Direct electron transfer reaction of hemoglobin at the bare silver electrode (Li et al.) 267
H_2O
Quantum chemical study of the adsorption of an H_2O molecule on an uncharged mercury surface (Nazmutdinov et al.) 227
Horizontal touching technique
Adsorption of octadecanol from the gas|solution interface onto an electrified gold|solution interface (Bizzotto et al.) 259
H_2S impurity
Kinetic studies of the effects of H_2S impurity on hydrogen oxidation in molten $(Li+K)CO_3$ (Uchida et al.) 161
Hydrazones
Electrolytic partial fluorination of organic compounds. Part IX. Selective anodic monofluorination of hydrazones (Fuchigami et al.) 255
Hydrogen oxidation
Kinetic studies of the effects of H_2S impurity on hydrogen oxidation in molten $(Li+K)CO_3$ (Uchida et al.) 161
Hydrogen storage
Electrochemical reduction of carbon dioxide on hydrogen-storing materials: Part 4. Electrochemical behavior of the Pd electrode in aqueous and nonaqueous electrolyte (Ohkawa et al.) 247

Inert-type electrolytes
Contact glow discharge electrolysis: a study of its chemical yields in aqueous inert-type electrolytes (Sengupta, Singh) 113
Interfacial capacitance
Solvent effect on interfacial capacitance of metal electrodes (Jarząbek, Stafiej) 103
Interfacial electrochemistry
TDS study of the anodic layer on emersed polycrystalline platinum (Dalbeck et al.) 233
Iodide-modified electrodes
Direct electrochemical reactions of cytochrome *c* at iodide-modified electrodes (Lu et al.) 79
Ion association
Ion transfer across the water/nitrobenzene interface facilitated by ion association and precipitation (Hundhammer et al.) 275
Ion exchange mechanism
Electrochemical quartz crystal microbalance investigation of the ion exchange mechanism in the first oxidation step of polyaniline in $HClO_4$ (Miras et al.) 193

Ion transfer
Ion transfer across the water/nitrobenzene interface facilitated by ion association and precipitation (Hundhammer et al.) 275

Kinetic study
Kinetic studies of the effects of H_2S impurity on hydrogen oxidation in molten $(Li+K)CO_3$ (Uchida et al.) 161

Laser activation
Laser activation of carbon microdisk electrodes: surface oxide effects on $Ru(NH_3)_6^{2+/3+}$ kinetics (Jaworski, McCreery) 175
Leucoemeraldine–emeraldine transition
Electrochemical quartz crystal microbalance investigation of the ion exchange mechanism in the first oxidation step of polyaniline in $HClO_4$ (Miras et al.) 193
Limiting currents
Phenomena limiting the rate of electroreduction of cyanide silver complexes at low electrode polarizations (Baltrunas et al.) 93
Linear sweep voltametry
The influence of diffusion coefficients in a catalytic electron transfer mechanism on linear sweep voltammetric and potential step chronoamperometric measurements (Occhialini et al.) 39

Metal clusters
A quantum chemistry description of carbon monoxide and water absorbates on single-crystal rhodium and platinum clusters (Paredes Olivera et al.) 131
Metal electrodes
Solvent effect on interfacial capacitance of metal electrodes (Jarząbek, Stafiej) 103
Minority carrier relaxation
A kinetic equation for minority carriers at the surface of semiconductor electrodes (Ramakrishna, Rangarajan) 289

m-Nitrobenzene sulphonic acid
The pH-dependent adsorption of *m*-nitrobenzene sulphonic acid on a thermally prepared Ti/TiO_2 electrode (Ravichandran et al.) 217
Nucleation and growth
Nucleation and growth of Prussian Blue films on glassy carbon electrodes (Kuhnhardt) 71

Octadecanol
Adsorption of octadecanol from the gas|solution interface onto an electrified gold|solution interface (Bizzotto et al.) 259
Organic compounds
Electrolytic partial fluorination of organic compounds. Part IX. Selective anodic monofluorination of hydrazones (Fuchigami et al.) 255
Oxidation
Electrochemical quartz crystal microbalance investigation of the ion exchange mechanism in the first oxidation step of polyaniline in $HClO_4$ (Miras et al.) 193
Oxidative underpotential deposition
Thin-layer electrochemical studies of the oxidative underpotential deposition of sulfur and its application to the electrochemical atomic layer epitaxy deposition of CdS (Colletti et al.) 145

pH-dependent adsorption
The pH-dependent adsorption of *m*-nitrobenzene sulphonic acid on a thermally prepared Ti/TiO_2 electrode (Ravichandran et al.) 217
Phosphate buffersolution
Adsorption of CO and CO_2 on polycrystalline Pt at a potential in the hydrogen adsorption region in phosphate buffer solution: An in situ Fourier transform IR study (Taguchi et al.) 199
Photoacoustic investigation
In-situ photoacoustic investigation of thallium underpotential deposition on polycrystalline copper electrodes (Berg et al.) 33
Photoelectrochemical growth
Photoelectrochemical epitaxial growth of Co oxides on TiO_2 and $SrTiO_3$ single-crystal electrodes (Matsumoto et al.) 251
Planar electrode
New methods for the application of an alternating current. Part 3. Application of combined direct and alternating currents at standard electrodes (Molina et al.) 15
Planar electrodes
Chronopotentiometric response with programmed current when the reactant and/or product are adsorbed at spherical and planar electrodes (Alcaraz) 207
Platinum
A quantum chemistry description of carbon monoxide and water absorbates on single-crystal rhodium and platinum clusters (Paredes Olivera et al.) 131
On the multiple states of gold deposited onto polycrystalline platinum substrates (Bakos, Szabó) 223
Polyalkylenedioxythiophenes
Electrochemical and spectroscopic characterization of polyalkylenedioxythiophenes (Dietrich et al.) 87
Polyaniline
Electrochemical quartz crystal microbalance investigation of the ion exchange mechanism in the first oxidation step of polyaniline in $HClO_4$ (Miras et al.) 193
Polycationic hydrogel
A new polycationic hydrogel for three dimensional enzyme wired modified electrodes (Calvo et al.) 279
Polycrystalline
In-situ photoacoustic investigation of thallium underpotential deposition on polycrystalline copper electrodes (Berg et al.) 33
Polycrystalline platinum
TDS study of the anodic layer on emersed polycrystalline platinum (Dalbeck et al.) 233
Polycrystalline Pt
Adsorption of CO and CO_2 on polycrystalline Pt at a potential in the hydrogen adsorption region in phosphate buffer solution: An in situ Fourier transform IR study (Taguchi et al.) 199
Poly-(3-methylthiophene)
Reproducibility in the electrodeposition of conducting polymers —a parametric study of poly-(3-methylthiophene) (Barsch et al.) 97
Potential step chronoamperometric
The influence of diffusion coefficients in a catalytic electron transfer mechanism on linear sweep voltammetric and potential step chronoamperometric measurements (Occhialini et al.) 39
Precipitation
Ion transfer across the water/nitrobenzene interface facilitated by ion association and precipitation (Hundhammer et al.) 275
Prussian Blue films
Nucleation and growth of Prussian Blue films on glassy carbon electrodes (Kuhnhardt) 71
Pt(110)
Structural effects on CO_2 reduction at Pt single-crystal electrodes. Part 1. The Pt(110) surface (Rodes et al.) 183

Quantum chemistry
A quantum chemistry description of carbon monoxide and water absorbates on single-crystal rhodium and platinum clusters (Paredes Olivera et al.) 131

Redox proteins
Direct electron transfer reaction of hemoglobin at the bare silver electrode (Li et al.) 267

Redox switching
Reproducibility in the electrodeposition of conducting polymers —a parametric study of poly-(3-methylthiophene) (Barsch et al.) 97
Rhodium
A quantum chemistry description of carbon monoxide and water absorbates on single-crystal rhodium and platinum clusters (Paredes Olivera et al.) 131
$Ru(NH_3)_6^{2+/3+}$ kinetics
Laser activation of carbon microdisk electrodes: surface oxide effects on $Ru(NH_3)_6^{2+/3+}$ kinetics (Jaworski, McCreery) 175

Semiconductor interfaces
A kinetic equation for minority carriers at the surface of semiconductor electrodes (Ramakrishna, Rangarajan) 289
Single-crystal electrodes
Structural effects on CO_2 reduction at Pt single-crystal electrodes. Part 1. The Pt(110) surface (Rodes et al.) 183
Solvent effect
Solvent effect on interfacial capacitance of metal electrodes (Jarząbek, Stafiej) 103
Spectroscopic characterization
Electrochemical and spectroscopic characterization of polyalkylenedioxythiophenes (Dietrich et al.) 87
Spherical electrode
New methods for the application of an alternating current. Part 3. Application of combined direct and alternating currents at standard electrodes (Molina et al.) 15
Spherical electrodes
Chronopotentiometric response with programmed current when the reactant and/or product are adsorbed at spherical and planar electrodes (Alcaraz) 207
Standard electrodes
New methods for the application of an alternating current. Part 3. Application of combined direct and alternating currents at standard electrodes (Molina et al.) 15
Sulfur
Thin-layer electrochemical studies of the oxidative underpotential deposition of sulfur and its application to the electrochemical atomic layer epitaxy deposition of CdS (Colletti et al.) 145
Surface oxidation
Laser activation of carbon microdisk electrodes: surface oxide effects on $Ru(NH_3)_6^{2+/3+}$ kinetics (Jaworski, McCreery) 175
Surface state relaxation
A kinetic equation for minority carriers at the surface of semiconductor electrodes (Ramakrishna, Rangarajan) 289

Thallium
In-situ photoacoustic investigation of thallium underpotential deposition on polycrystalline copper electrodes (Berg et al.) 33
Thermal desorption spectroscopy
TDS study of the anodic layer on emersed polycrystalline platinum (Dalbeck et al.) 233
Ti/TiO_2 electrode
The pH-dependent adsorption of *m*-nitrobenzene sulphonic acid on a thermally prepared Ti/TiO_2 electrode (Ravichandran et al.) 217
Transition metal surfaces
The interaction of formic acid with transition metal surfaces, studied in ultrahigh vacuum (Columbia, Thiel) 1

Ultrahigh vacuum
The interaction of formic acid with transition metal surfaces, studied in ultrahigh vacuum (Columbia, Thiel) 1
Ultramicroelectrodes
The use of ultramicroelectrodes for the determination of diffusion coefficients (Moressi, Fernández) 153
Uncharged mercury surface
Quantum chemical study of the adsorption of an H_2O molecule on an uncharged mercury surface (Nazmutdinov et al.) 227
Underpotential deposition
In-situ photoacoustic investigation of thallium underpotential deposition on polycrystalline copper electrodes (Berg et al.) 33

Water
A quantum chemistry description of carbon monoxide and water absorbates on single-crystal rhodium and platinum clusters (Paredes Olivera et al.) 131
Water/nitrobenzene interface
Ion transfer across the water/nitrobenzene interface facilitated by ion association and precipitation (Hundhammer et al.) 275